

46227

# Phase I RFI/RI Report Response to DOE Comments

Rocky Flats Environmental Technology Site  
Inside Building Closures  
(Operable Unit 15)

U.S. Department of Energy  
Rocky Flats Environmental Technology Site  
Golden, Colorado

Environmental Restoration Program

January 1995

REVIEWED FOR CLASSIFICATION/UCNI  
By Mary J. Frazee 12-14-95  
Date 1/14/95

1015-000101

## INTRODUCTION

This document responds to comments received from the U S Department of Energy on the Draft Phase I RFI/RI Report, Operable Unit No 15, Inside Building Closures August 1994 Each comment received is listed and followed immediately by a response A copy of the original comment forms is provided at the back of the document for reference

Comment	Page	Para	Line	Comments	Response
1	ES-4	1	4	The sentence stating "None of the IHSSs showed radionuclide activity levels of regulatory concern" is incorrect. IHSS 204 is radioactive at levels requiring radiation control. I know that the plan is to leave the cleanup for rads to the people using the uranium chip roaster after they use it some more but I need some evidence that the roaster is planned for future use	The sentence was deleted from the Report. All references regarding the future use or disposition of the IHSSs have been removed from the Report, since they are beyond its scope.
2	ES-5	2	Item 4	Is the chip roaster and its rooms in compliance with the ARARs of rad worker protection standards? The statement in Item 4 is not correct	IHSS 204 is in compliance with the radiation worker protection standard ARARs by being maintained in a protective state for workers in accordance with the existing RFETS procedures that specifically govern operations and worker exposures at RFETS. Item 4 has been modified to reflect this
3	ES-6	2	Item 9	While the statement "the IHSSs do not exceed rad protection standards applicable under current land use" is technically correct, you need to add the caveat "if institutional and engineering safe guards remain in place"	The text has been modified to clarify the status of IHSS 204. References to future use and disposition of the IHSSs have been removed from the Report
4	1-5	1	Item 1	Delete "and need a RCRA operating permit" and insert "as a <u>90 day storage unit</u> " and "sites" to "site" in the first of the sentence	This generic statement, which applies to all IHSSs, has been modified to read " continue to operate as RCRA units." This expands the statement to include not only permitted units, but also 90 day accumulation areas
5	1-8	1	7	If there is a threat of a post-closure escape, then a BRA is required. Can we separate the lack of a cleanup of the chip roaster from this need for a BRA?	The procedures in place at the chip roaster (IHSS 204) associated with the posting of Rooms 32 and 502 as radiological areas preclude releases under current conditions. A BRA may be required to support future uses, however, any references to the future use of IHSS 204 have been removed since they are beyond the scope of the RFU/RI Report

AMER REVIEW OF TECHNICAL DOCUMENTS  
REVIEW COMMENT RECORD

Document Reviewed (Title, Number, Revision, Date, etc.)  OU-15, Draft Phase I RI/RFI Report  August, 1994		Reviewer R J Hyland  Signature  Date Sept 8, 1994 Phone x2136  Organization RTG/DOE-RF/FO/ER	Agreement with Dispositions  Date  Reviewer  Document Preparer
*Comment Type E=Essential (agreement must be documented for other than verbatim incorporation), S=suggested, Non-C=Nonconcurrency			
Comment No	Comment Type*	Sect/Para No	Comment
1	E	Response to Original Comments	<p>Draft Phase I TM-1 Comment #11 Page 3-3, 1st para - CO<sub>2</sub> is identified as a VOC Is this a misprint, typo, etc</p> <p>Final Phase I TM-1 Comment #4 The sentence may have been corrected but the concept still persists CO<sub>2</sub> is identified as a COC for HISS's 170 and 180 in Subsection 512 CO<sub>2</sub> is present in all HISSs and is, in fact, present in the atmosphere Am I missing something here or is this a typo, misprint or mistake made previously that has been carried on? If CO<sub>2</sub> is in fact a COC then some form of explanation should be included in the write-up If it should be Carbon Tetrachloride than it should be changed If this is a typo/mistake that has been carried through for some unknown reason then it should be addressed, in some logical fashion, before the release of the RI/RFI Report and the ensuing public comment If I am confused, so shall they be</p>

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August, 1994			
*Comment Type	I=Essential (agreement must be documented for other than verbatim incorporation), S=suggested, Non-C=Nonconcurrency		
Comment No	Comment Type*	Section /Para No	Comment
3	E	General and List of Acronyms	<p>The CDII is now the Colorado Department of Public Health and Environment (CDPHE)</p> <p>The RFP is now the "Rocky Flats Environmental Technology Site (Site)" It is currently understood that the DOE Site Manager does not like "RFETS" since it presents the connotation of "Rocky Flats Lets"</p> <p>The entire document should be cleansed of the old and the new inscribed. Additionally, the "List" should be modified to reflect the new</p> <p>The acronym "WSRIC" is used in the document and not apparently defined either in the text or the "List"</p>
4	E	List of References	<p>The listing is incomplete. There are numerous instances in the document where a document is referenced and it is not identified in the "List"</p>
5	E	Executive Summary Page 2/6 et al	<p>Last Paragraph, 1st line</p> <p>The complete name of the Work Plan should be used. This is true for the rest of the document also. Additionally, the Work Plan is not identified as a Reference</p>
6	E	Executive Summary Page 1/6	<p>First Paragraph, last sentence</p> <p>The wording is questionable. For one thing, everything is of a regulatory concern. There is no such thing as BRC for either the LPA or the CDPHL at the Site. The second thing the statement is not true.</p>

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OU-IS, Draft Phase I RI/RI Report August, 1994	Date Sept 8, 1994 Phone 2136 Organization RTG/DOE-RTO/RTR	Reviewer Document Preparer	
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Comment No	Comment Type*	Comment	Disposition
9	E	<p>Conclusion #8</p> <p>The EPA RPM has publicly disputed this stance and it is doubtful that you will be able to prove this conclusively. The back-up statement is true as long as certain conditions are met. These conditions will preclude the unrestricted release for radionuclides or even the restricted use without institutional controls or engineered safeguards in place. For radionuclides 10 CFR 20, Appendix B criteria are being used. These criteria are for radiation workers and by their very nature imply institutional controls.</p> <p>Conclusion #9</p> <p>See above. The selling of HISS 204 to the regulators based upon the explanatory statement will be a good trick.</p>	<p>The standards taken from 10 CFR 20 and 10 CFR 835 do not require the use of controls to limit exposures - i.e., if the exposure levels do not cause a worker to exceed the given dose limits in the absence of controls (such as protective clothing), then none are required. However, the owner/operator of the facility is allowed under the regulations to develop controls which may consist of equipment and procedures to limit worker doses. This distinction is critical, since HISS 204 employs controls in the form of personal protective equipment (PPE), personal monitors, and procedures to limit doses to levels well below those prescribed by law. These controls are not "institutional controls" under CERCLA and do not constitute a remedial action or corrective measure. They are allowable under the definitions of both 10 CFR 20 and 10 CFR 835. These facts in conjunction with the lack of evidence of historical releases, support this conclusion.</p> <p>The position with respect to HISS 204 is that the procedures in place presently meet the standards specified in the referenced ARRAs, which allow for the use of such controls in order to meet the dose limits. Therefore, HISS 204 is in a state which is acceptable for its current industrial use. HISS 204 is not in a state where it could presently be released to the public, however, the future use for HISS 204 is beyond the scope of the RI/RI Report. The Report has been revised throughout to clarify this position. No scaling is intended with regard to HISS 204.</p>

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OU-15, Draft Phase I RI/RI Report August, 1991	Date Sept 8, 1994 Phone \2136 Organization RTG/DOE-RTTO/ER	Reviewer Document Preparer	
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Comment No	Comment Type*	Sect /Para No	Comment
10	E	Sect 10 Para 114 Page 5/21	Three categories of LISSs are identified, however, LISSs 211 does not appear to fall into any of these categories since it is an in-use 90 Storage Area that will continue to be used after RCRA Clean Closure
11	E	Sect 10 Para 121 Page 8/21	Last Paragraph This statement presents basic point of contention between FG&G and the EPA relative to CERCLA Closure for radionuclides
12	E	Sect 10 Table 1-1 Page 11/21	Fourth set of Blocks The IAG SOW Requirement First Bullet is incomplete. The last sentence of the RI/RI Disposition is inconsistent with the Second Bullet of the IAG SOW Requirement, if the regulators consider that radionuclides are Hazardous Constituents
13	E	Sect 10 Table 1-2 Page 11/21	Section 30 - OU-15 ARARs Work Plan Commitment does not identify 29 CFR 1910.96, which is also an ARAR RI/RI Disposition The term "dose-rate" is identified. A more precise term would be the dose-rate for Radiation Workers or words to this effect

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OU-15, Draft Phase I RI/RI Report August, 1994	Organization RG/DOE-RI FO/LR	Reviewer Document Preparer	
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Comment No	Comment Type*	Sect /Para No	Comment
14	E	Sect 10 Table 1-2 Page 14/21	<p>Section 5.0 - RI/RI Tasks, Third Bullet The acronym "WSRIC" is used and not identified in the "List RI/RI Disposition</p> <p>This last sentence may not be true for HISS 204. Initially, the assumption was made that the Original U Chip Roaster would be revised after RCRA Clean Closure to process U Chips. This assumption may not be valid in that the Roaster has been identified as a potential source of radioactive scrap metal (RSM) for the NCPP. A final resolution needs to be made relative to the status of HISS 204 in the light of current events and the "real world". Is it to be RCRA Clean Closed and reused or is it to be RCRA Clean Closed and await decontamination and removal? And if it is the latter, who will do it -- the NCPP Stage III Contractor or the Integration Contractor?</p>
15	E	Sect 10 Table 1-2 Page 15 & 16/21	<p>Section 7.0 - FSP Differences exist between the Work Plan Commitment and the RI/RI Disposition -- One side uses Arabic Numerals for the Stages, the other Roman. Is this really the way they are?</p> <p>The document has been updated to reflect use of Stage 1 and 2 in order to stay consistent with the OU15 Work Plan</p>

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OUI-15 Draft Phase I RF/R/RI Report August, 1994	Date Sept 8, 1994 Phone \2136 Organization RTG/DOC-RFO/FR	Reviewer Document Preparer	
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Comment No	Comment Type*	Sect/Para No	Comment
16	E	Sect 1 0 Table 1-2 Page 18/21	<p>Section 10 0 - QA Addendum</p> <p>OPS-FO 03 is identified in both the Work Plan Commitment and the RF/R/RI Disposition, however, it could not be found to be identified in the Final Phase I RF/R/RI Work Plan (WP) Is OPS-FO 03 a regulatory approved procedure? If so, what approved change to the WP incorporates this procedure?</p> <p>SOP 10 27 is also identified but not specifically called out in the WP. A review of SOP-FO 27 did not identify that either it or the DCNs to it had been approved by the regulators. It appears that your "Trail of Bread Crumbs" is not fully defined, in that completely "approved procedures" may not exist. Because this could impact the final document, please investigate and explain</p>
17	E	Sect 2 0 Para 2 1 Page 2/28	<p>Third Bullet, 2nd to last line</p> <p>The term -- "runoff" (inside building) -- is used. Does this term mean runoff from the outside coming into the building or is there actually runoff inside of the building?</p>
18	F	Sect 2 0 Para 2 1 Page 4/28	<p>Source Characteristics, 2nd sentence</p> <p>Recommend that the wording be made a bit stronger Change " are believed to have occurred " to " have been identified "</p>
19	E	Sect 2 0 Para 2 4 2 Page 12/28	<p>Second Paragraph, last sentence</p> <p>As this sentence reads, it means that the concrete floor was scuffed and in poor condition. You probably meant to say that the paint was scuffed and in poor condition. Please clarify the sentence.</p>

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Comment No	Comment Type*	Sect /Para No
20	E	Sect 2 0 Para 2 5 2 Page 15/28
		Top Paragraph, last sentence The identified need for PPE in HISS 204 does not give a lot of support to the "No Action" path
21	E	Sect 2 0 Para 2 6 1 Page 16/28
		Last sentence on page What does " collected in the waste vacuum cleaner and managed in the process drain " mean?
22	E	Sect 3 0 Para 3 3 1 Page 6/36 and Page 7/36
		First Paragraph Radiological Operating Instruction 3 1 is not identified in the WP but the other document Environmental Management Radiological Guidelines Section 3 1 is if it is also called EMRG 3 1 Have the regulators approved the use of a substitute procedure? Top Paragraph Counting and analysis instrumentation is identified, however, the proper procedure(s) for use with the instruments is (are) not Is everything done or LMRG 3 1 Please clarify
23	E	Sect 3 0 Para 3 3 2 Page 7/36
		First paragraph SOP EO 27 is identified See Comment #16 above
24	E	Sect 3 0 Para 3 3 2 Page 8/36
		First paragraph FG&G SOP SW 2 is not identified in the WP Has its use been approved by the regulators?

Document Reviewed (Title, Number, Revision, Date, etc.)	Reviewer R J Ilyland Signature	Date Sept 8, 1991 Phone \2136	Agreement with Dispositions Date Reviewer Document Preparer
OU-1S Draft Phase I RTI/RI Report August, 1994	Organization RTG/DOE-RTTO/TR		
*Comment Type E=Essential (agreement must be documented for other than verbatim incorporation), S=suggested, N=Nonconcurrency			
Comment No	Comment Type*	Sect /Para No	Comment
25	E	Sect 3 0 Para 3 3 2 Page 8/36 and 9/36	Last Paragraph page 8 and Top Paragraph page 9 What procedures are associated with the instrumentation identified and are these procedures identified in the WP?
26	E	Sect 3 0 Para 3 4 Page 9/36	Bottom of page "Dissolved radionuclides" are identified but not specifically identified Since U is the primary radiological COC shouldn't the CLP Protocol be identified?
27	E	Sect 3 0 Para 3 5 Page 11/36	Top Paragraph Add a space at the end of the paragraph
28	E	Sect 4 0 Para 4 2 1 Page 4/44	First Sentence SOP TO 27 is identified See Comment #16 above
See response to R J Ilyland (DOI /R 1c) Comment No 23			

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Comment No	Comment Type*	Sect /Para No	Comment
29	E	Sect 4 0 Para 4 2 3 Page 19/44	<p>First Bullet The write-up is confusing and does not appear to be in accordance with the explanation on the proceeding page, i.e., how can you have something that is valid at a confidence level of 99% and yet not be valid at a confidence level of 95%? This does not appear to be valid statistically</p> <p>Last Paragraph, last full sentence Do you really want to acknowledge that there is contamination under the paint? This position is counter to your ER 2000 "No Action" position</p>
30	E	Sect 4 0 This 4-2 thru 4-6 Page 19/44	<p>There appears to be missing data in the tables Please check and add as appropriate</p>
31	E	Sect 5 0 Para 5 1 2 Page 6/92	<p>Top Paragraph RAGS Part A is not in the References What is it?</p>

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Comment No	Comment Type*	Sect /Para No	Comment	
32	E	Sect 5 0 Para 5 2 1 Page 15/92	First Paragraph, last sentence The levels in HSS 204 appear to exceed the specified radiation protection standards. They definitely exceed Reg Guide 1 86 and DOE Order 5480 11 surface contamination levels. How can you make this statement?	
33	E	Sect 5 0 Para 5 2 1 3 Page 20/92	Table The proper DAC values for Radiation Workers extracted from 10 CFR 20, Appendix B, Table 1, Rev Jan 1, 1994 are Am <sup>241</sup> -- 3 00 E <sup>-12</sup> uCi/ml (soluble) Ra <sup>226</sup> -- 3 00 E <sup>-10</sup> uCi/ml (soluble) Pu <sup>239</sup> -- 3 00 E <sup>-12</sup> uCi/ml (soluble) Pu <sup>240</sup> -- 3 00 E <sup>-12</sup> uCi/ml (soluble) U <sup>231</sup> -- 5 00 E <sup>-10</sup> uCi/ml (soluble) U <sup>234</sup> -- 5 00 E <sup>-10</sup> uCi/ml (soluble) U <sup>238</sup> -- 6 00 E <sup>-10</sup> uCi/ml (soluble) U <sup>236</sup> -- 6 00 E <sup>-10</sup> uCi/ml (soluble)	The DAC values have been updated per this comment and additionally, the most restrictive values for Class Y were used. This changed the values used for uranium. The DAC values for Radiation Workers extracted from 10 CFR 20, Appendix B, Table 1, Rev Jan 1, 1994 are Am <sup>241</sup> -- 3 00 E <sup>-12</sup> uCi/ml (soluble) Ra <sup>226</sup> -- 3 00 E <sup>-10</sup> uCi/ml (soluble) Pu <sup>239</sup> -- 3 00 E <sup>-12</sup> uCi/ml (soluble) Pu <sup>240</sup> -- 3 00 E <sup>-12</sup> uCi/ml (soluble) U <sup>231</sup> -- 2 00 E <sup>-11</sup> uCi/ml (soluble) U <sup>234</sup> -- 2 00 E <sup>-11</sup> uCi/ml (soluble) U <sup>238</sup> -- 2 00 E <sup>-11</sup> uCi/ml (soluble) U <sup>236</sup> -- 2 00 E <sup>-11</sup> uCi/ml (soluble)
			Since these values differ somewhat from those used, how will their use affect the screening process? <u>Please explain in detail.</u> This information will be needed to get final Phase I RI/RI Report through LSII	
			Paragraph No 2 The value used for Pu is wrong if the above is correct The value for Pu-239/240 has been changed to 3 00 x 10 <sup>-1</sup> pCi/g	
			Page 21/92	

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August, 1994	Organization	RTG/DOE-RFTO/ER	Reviewer	Reviewer
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Comment No	Comment Type*	Sect /Para No	Comment	Disposition
34	E	Sect 5 0 Para 5 2 5 Page 27/92	Second Paragraph It is not at all certain that IHSS 204 will remain as an operational RCRA unit in the building. Please check and identify what is actually going to happen to the Chip Roaster It may have to be RCRA Clean Closed and the Part B Permit modified in any event	All references regarding the future use and disposition of IHSS 204 have been removed from the Report. The disposition of the chip roaster will be addressed in the Proposed Plan and CAD/ROD
35	E	Sect 5 0 Para 5 2 8 1 Page 29/92	3rd Sentence IHSS 204 shows considerable surface contamination and did not appear to have been screened for airborne. The statement is probably true for only five of the six IHSSs  Last Line Recommend that the proper adjective be used to qualify the dose rate as the one for occupational exposure	The hot water rinse sampling results for IHSS 204 were screened against the airborne concentration limits and did not exceed the limits. No screening was performed on the pre-rinse smear samples. Post-rinse smear samples and dose-rate surveys were not performed for IHSS 204. The text has been modified to reflect this. The reference to dose-rate standards has been modified as requested

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<b>*Comment Type</b> E=Essential (agreement must be documented for other than verbatim incorporation), S=suggested, Non-C=Nonconcurrency			
Comment No	Comment Type*	Sect /Para No	Comment
36	E	Sect 7 0	<p>IIISS 204 contains surface contamination above and beyond the NRC's limits and the potential for re-suspension and generating airborne limits above those allowable is very real. The unit is not currently operating and may not be considered operational by the state under the RCRA Permit since it has not been used for well over a year. The question as to its status as either idle or abandoned equipment needs to be addressed. This has a tendency to cloud the overall BRA issue. It was previously understood that as long as the building safety envelope and the institutional controls remained in place there was no imminent threat of a release to the environment and therefore a BRA was not needed. However, the explanation in this section indicates otherwise. Please explain</p>

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## United States Government

## Department of Energy

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## **Rocky Flats Field Office**

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Information Pertaining to the Department of Energy Headquarters Commenting on the Draft  
Phase I RCRA Facility Investigation/Remedial Investigation Report for Operable  
Unit No 15

Dennis L Schubbe  
Manager, Operable Unit No 15  
EG&G Rocky Flats, Inc

In regard to your request for information pertinent to the Department of Energy (DOE) Headquarters' (HQ) intentions with respect to reviewing and commenting upon the Draft Operable Unit (OU) No 15 Phase I RCRA Facility Investigation/Remedial Investigation (RFI/RI) Report, the following is provided

Recent telephone conversations with Mr A Rampertaap and Mr J Ciocco, of EM-453, have indicated that DOE HQ does not intend to provide comments on the Draft Phase I RFI/RI Report for OU 15

If you need additional information or have any questions, please contact me at extension 4013.

  
William N. Fitch  
Manager, Operable Unit No 15  
Environmental Restoration

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J Roberson, AMER, RFFO  
F R Lockhart, ER, RFFO  
S Stiger, EG&G  
A Primrose, EG&G

Reviewed for Addressee  
Corres Control RFP

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United States Government

# memorandum

DATE SEP 16 1994

REPLY TO  
ATTN OF ER WNF 09675

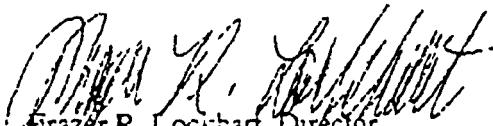
SUBJECT Transmittal of Comments on the Draft Phase I RCRA Facility Investigation/Remedial Investigation Report for Operable Unit 15, "Inside Buildings Closures"

TO Sue G Stiger, Director  
Environmental Restoration Program Division  
EG&G Rocky Flats, Inc

This document transmits the Department of Energy/Rocky Flats Field Office comments for Operable Unit 15 (OU 15) on the subject report. The most important question raised by the comments is the radionuclide contamination in Individual Hazardous Substance Sites (IHSS) 204, the Original Uranium Chip Roaster. It is our understanding that the radiation emitted in the rooms comprising this IHSS may exceed the radiation worker protection levels in 10CFR835, DOE Order 5480.11, and 29CFR1910.

The statement is made in the draft Phase I RCRA Facility Investigation/Remedial Investigation Report that "none of the radionuclide results exceeded the standards provided in the Applicable or Relevant and Appropriate Requirements." In the case of IHSS 204, this is probably incorrect.

We need to make the statements in the report agree with the reality of the situation.



Frazer R. Lockhart, Director  
Major Systems Acquisition Division  
Environmental Restoration

## Attachments

cc w/Attachments  
R J Hyland, RTG  
D L Schubbe FG&G

cc w/o Attachments  
J M Roberson, AMER, RFFO  
W N Fitch, ER, RFFO  
A L Primrose, EG&G

Comments of William N. Fitch  
 draft Phase I RFI/RI Report  
 Operable Unit 15 Inside Building Closures

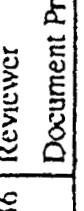
page paragraph line

- ES-4 1 4 The sentence stating "None of the IHSSs showed radionuclide activity levels of regulatory concern" is incorrect. IHSS 204 is radioactive at levels requiring radiation control. I know that the plan is to leave the cleanup for rads to the people using the uranium chip roaster people after they use it some more but I need some evidence that the roaster is planned for future use
- ES-5 2 Item 4 Is the chip roaster and its rooms in compliance with the ARARs of rad worker protection standards? The statement in item 4 is not correct
- ES-6 2 Item 9 While the statement "the IHSSs do not exceed rad protection standards applicable under current land use" is technically correct you need to add the caveat "if institutional and engineering safe guards remain in place"
- 1-5 1 Item 1 Delete "and need a RCRA operating permit" and insert "as a 90-day storage unit" and "sites" to "site" in the first of the sentence
- 1-8 1 7 If there is a threat of a post-closure escape, then a BRA is required. Can we separate the lack of a cleanup of the chip roaster from this need for a BRA?
- 1-8 2 Item 2 The SOW states additional work is necessary at an IHSS when there is a threat of post-closure escape hazardous waste, etc. This is not a problem in my opinion. The threat should be contained by the building rad control program. But regulatory controls need to be formally in place for the chip roaster.
- 1-14 5 last sentence under RFI/RI Disposition  
 The statement "therefore, remedial alternative development was not necessary" does not consider IHSS 204
- 4-19 all bullets The discussion states that Chi squared of 4.04 indicates that the alpha data is valid at the 99 per cent confidence level, but not at a 95 percent confidence level. Please explain how this can be. It does not agree with my understanding of statistics. Perhaps I need a refresher. The same problem occurs in the second bullet

- S-25 3 Step 3 Seven of the sampling areas failed the screening limit for beta. There is potential for some rad to be in the floor. Further work is needed, looking under the paint.
- S-27 2 See Figure 5-15 Table shows radon samples with gross alpha of 5400 pCi/L and Uranium 238 of 7600 pCi/L
- S-29 4 5 There is a hint of rad in IHSS 180
- 7-2 2 8 If the equipment in the Chip Roaster Room is not used again, who will be responsible for the radiation cleanup? The ARAR's for radiation are currently exceeded. Will a HIRRA be required in the future?
- 7-3 1 2 It seems that the radiation data does exceed the ARAR in 204. Will a BRA be required?
- 8-2 Item 4 The statement that the IHSSs are in compliance with ARARs for rad is not correct in IHSS 204
- 8-3 Item 9 The Statement "There is no current or imminent threat at the OU15 IHSSs under the current land use" is misleading. The phrase "and the administrative controls in place" should be added to this statement.

AMER REVIEW OF TECHNICAL DOCUMENTS

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Document Reviewed (Title, Number, Revision, Date, etc.)				Reviewer R J Hyland	Signature 	Date: September 8 1994	Phone x2136	Reviewer	Agreement with Dispositions
Comment No.	Comment Type*	Section/Para No.	Comment	Disposition					
1	E	Response to Ongoing Comments	Draft Phase I TM-1 Comment #11 Page 3-1, 1st para - CO <sub>2</sub> is identified as a VOC. Is this a misprint, typo, etc. Final Phase I Tw-1 Comment #4 The sentence may have been corrected but the concept still persists. CO <sub>2</sub> is identified as a COC for IHSSs 179 and 180 in Subsection 5.1.2. CO <sub>2</sub> is present in all IHSSs and is, in fact, present in the atmosphere. Am I missing something here or is this a typo, misprint or mistake made previously that has been carried on? If CO <sub>2</sub> is in fact a COC then some form explanation should be included in the write-up. If it should be Carbon Tetrachloride then it should be changed. If this is a typomistake that has been carried through for some unknown reason then it should be addressed, in some logical fashion, before the release of the RURRI Report and the ensuing public comment. If I am confused, so shall they be						

\*Comment Type E = Essential (agreement must be documented for other than verbatim incorporation). S = Suggested, Non-C = Nonconformance

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## REVIEW COMMENT/RECORD CONTINUATION SHEET

Document Reviewed (Title, Number, Revision, Date, etc.)	Reviewer	R Hyland	Agreement with Dispositions
OU-15, Draft Phase I RTR/R Report August, 1994	Date	September 8 1994	Date Reviewer
	Organization	RTC/DOE — RI-FO/FR	Document Preparer

Comment No	Comment Type*	Secn/Para No	Comment	Disposition
1 (cont)	E	Draft Ph-1 RTR/RJ Report Sect 2, Pg 7/28 Para 2.2.1	<u>AND THIS SAGA CONTINUES</u>  The last line of the last paragraph refers to CO <sub>2</sub> as a VOC  CO <sub>2</sub> is identified as a contaminant of concern  <u>WHY???????</u>  Sect 5, Pg 5/92 Para 5.1.1.3	Why is CO <sub>2</sub> still identified as a contaminant? A logical explanation why CO <sub>2</sub> is considered to be a contaminant should be included in the Final Phase I RTR/R Report document or the call out of CO <sub>2</sub> as a contaminant should be dropped from the document. It makes little sense to identify something that surrounds us in the environment as a contaminant without an explanation. Failure to respond to this comment may jeopardize the delivery of the document to the regulators. This comment was made pursuant to the May, 1994 final Phase I RM-1 and not adequately responded too

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## REVIEW COMMENT RECORD CONTINUATION SHEET

Document Reviewed (Title, Number, Revision, Date, etc.) OU-15, Draft Phase I RTR/R Report August, 1994	Reviewer R. Hyland	Date September 8, 1994	Phone 22136	Agreement with Dispositions Date Reviewer
Organization RTG/DOE — RFF/MER	Document Preparer			

Comment No	Comment Type*	Sect/Para No	Comment	Disposition
2	E	Response to Comments	<p>Draft Phase I TM-1 Comment #20 As a general comment - The term "Error" is used but not defined or explained in some other manner. Is this term "<math>\pm</math>"? Is it in % or some other unit? Please define</p> <p>Final Phase I TM-1 Comment #5 The definition as presented on page ix of v is weak. It is hard to comprehend this explanation in either terms of a percent or a confidence level. The fact that there are counting errors is well known. The degree of error differs with different machines, analyses, etc. Statistically what is the error in definitive terms?</p> <p>TOC and Sect. 4 pg 2244 1tbl. 4-2, 1131</p> <p>"Error" - Are there any percent or units associated with the values shown? Two standard deviations usually means 68%.</p>	

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Document Reviewed (Title, Number, Revision, Date, etc.)	Reviewer	Date Hyland	Disposition with Reviewer's Signature
OU-15, Draft Phase I RFI/RI Report August, 1994		Date September 8, 1994 Organization RFG/DOE — RFI/MI/R	Review Date Reviewer Document Preparer

Comment No	Comment Type*	Section/Para No	Comment	Disposition
3	F	General and List of Acronyms	The CDIIS is now the Colorado Department of Public Health and Environment (CDPHE).  The RJ-P is now the "Rocky Flats Environmental Technology Site (RFST)." It is currently understood that the DOE Site Manager does not like "RFST" since it presents the connotation of "Rocky Flats Eats."	
4	E	Last of References	The entire document should be cleansed of the old and the new inserted. Additionally, the "List" should be modified to reflect the new.	The acronym "WSRIC" is used in the document and not apparently defined either in the text or the "List."
5	L	Executive Summary Page 2/6 et al	Last Paragraph, Last line  The complete name of the Work Plan should be used. This is true for the rest of the document also. Additionally, the Work Plan is not identified as a Reference	The listing is incomplete. There are numerous instances in the document where a document is referenced and it is not identified in the "List."
6	F	Executive Summary Page 4/6	First Paragraph, last sentence  The wording is questionable. For one thing everything is of a regulatory concern, there is no such thing as BRC for either the EPA or the CDPHE at the site. The second thing, the statement is not true	For one thing everything is of a regulatory concern, there is no such thing as BRC for either the EPA or the CDPHE at the site. The second thing, the statement is not true

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## REV.IV COMMITTEE RECORD CONTINUATION SHEET

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Off 15, Draft Phase I RPPR Report August, 1994	Date	September 8 1994	Review Date
	Organization	RFC/DOE -- RFPO/ER	Document Preparer

Comment No	Comment Type*	Section/Para No	Comment	Disposition
7	E	Executive Summary Page 5/6	Conclusion #4 IHSS 179 and 204 may not fit this statement	
8	E	Executive Summary Page 5/6	Conclusion #5 According to the DOL HSL folks the term standard for Be on the surface is not accurate. The proper terminology is "an accepted and achievable cleanliness level." The term standard apparently connotes some form of regulatory level, which does not exist for Be surface contamination. There is a 29CFR1910 (OSHA) Be airborne level, which is a standard. This needs to be clarified. Also HSP 1304 may utilize both the OSHA Standard and the industry accepted cleanliness level.	
9	E	Executive Summary Page 6/6	Conclusion #8 The EPA RPM has publicly disputed this stance and it is doubtful that you will be able to prove this conclusively. The backup statement is true as long as certain conditions are met. These conditions will preclude the unrestricted release for radionuclides or even the restricted use without institutional controls or engineering safeguards in place. For radionuclides 10CFR20, Appendix B criteria are being used. These criteria are for radiation workers and by their very nature imply institutional controls.	

Conclusion #9  
See above. The selling of IHSS 204 to the regulators based upon the explanatory statement will be a good trick

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Document Reviewed (Title, Number, Revision Date, etc.)	Reviewer	R Flyland	Agreement with Disposition
OU-15, Draft Phase I RF/R/RI Report August 1994	Date	September 8, 1994	Review Date
	Organization	RTG/DOE -- RFFO/ER	Reviewer
			Document Preparer

Comment No	Comment Type*	Sect/Para No	Comment	Disposition
10	E	Sect 10 Para 1 1 4 Page 5/21	Three categories of HSSs are identified, however, HSSs 211 does not appear to fall into any of these categories since it is an in use 99 Storage Area that will continue to be used after RCRA Clean Closure	
11	E	Sect 10 Para 1 2 1 Page 8/21	Last Paragraph This statement presents basic point of contention between EG&G and the EPA relative to CERCLA Closure for radionuclides	
12	E	Sect 10 Table 1-1 Page 11/21	Forth set of Blocks The IAG SOW Requirement First Bullet is incomplete The last sentence of the RF/R/RI Disposition is inconsistent with the Second Bullet of the IAG SOW Requirement, if the regulators consider that radionuclides are Hazardous Constituents	
13	E	Sect 10 Table 1-2 Page 13/21	Section 3.0 - OU-15 ARAR Work Plan Commitment does not identify 29CFR1910.96, which is also an AKA RF/R/RI Disposition The term "dose-rate" is identified. A more precise term would be the dose-rate for Radiation Workers or words to this effect	

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## REVIEW COMMENT RECORD CONTINUATION SHEET

Document Reviewed (Title, Number, Revision, Date, etc.)	Reviewer	R Hyland	Agreement with Disposition,
OU-15, Draft Phase I RFI/RI Report August, 1994	Date September 8 1994 Organization RTGDOE — RTFO/ER	Phone. x2136 Reviewer Document Preparer	Date Reviewer Document Preparer

Comment No	Comment Type*	Section / Paragraph No	Comment	Disposition
14	E	Sect 10 Table 1-2 Page 14/21	Section 50 - RFI/RI Task, Third Bullet The acronym "WSRIC" is used and not identified in the List RFI/RI Disposition	This last sentence may not be true for THSS 204. Initially the assumption was made that the Original U Chip Roaster would be reused after RCRA Clean Closure to process U Chips. This assumption may not be valid in that the Roaster has been identified as a potential source of radioactive scrap metal (RSM) for the NCPP. A final resolution needs to be made relative to the status of HSS 204 in the light of current events and the "real world". Is it to be RCRA Clean Closed and reused or is it to be RCRA Clean Closed and await decontamination and removal? And if it is the latter, who will do it — the NCPP Stage III Contractor or the Integration Contractor?
15	E	Sect 10 Table 1-2 Page 15&16/21	Section 70 - I-SP	Differences exist between the Work Plan Commitment and the RFI/RI Disposition --- One side uses Arabic Numerals for the Stages the other Roman. Is this really the way they are?

AMH-R REVIEW OF TECHNICAL DOCUMENTS

REVIEW COMMENT RECORD CONTINUATION SHEET

Document Reviewed (Title, Number, Revision Date, etc.)	Reviewer	R Hyland	Agreement with Dispositions
OU-15, Draft Phase I RI/RI Report August, 1994	Date	September 8, 1994	Phone x2136 Organization RTC/DOE — RFF/ER Document Preparer

Comment No	Comment Type*	Section No	Comment	Disposition
16	L	Sect 1.0 Table 1-2 Page 18/21	Section 1.0 - QA Addendum OPS-FO 03 is identified in both the Work Plan Commitment and the RI/RI Disposition, however, it could not be found to be identified in the Final Phase I RI/RI Work Plan (WP). Is OPS-FO 03 a regulatory approved procedure? If so, what approved change to the WP incorporates this procedure? SCOP FO 27 is also identified but not specifically called out in the WP. A review of SCOP-FO 27 did not identify that either it or the DCNs had been approved by the regulations. It appears that your "Trail of Bread Crumbs" is not fully defined, in that completely "approved procedures" may not exist. Because this could impact the final document please investigate and explain	
17	E	Sect. 2.0 Para. 2.1 Page 2/28	Third Bullet, 2nd to last line The term — "runoff" (inside buildings) — is used. Does this term mean runoff from the outside coming into the building or is there actually runoff inside of the building?	
18	E	Sect 2.0 Para 2.1 Page 4/28	Source Characteristic, 2nd sentence Recommend that the wording be made a bit stronger Change " are believed to have occurred " to " have been identified	
19	L	Sect. 2.0 Para 2.4 Page 12/28	Second Paragraph, last sentence As this sentence reads it means that the concrete floor was scratched and in poor condition. You probably meant to say that the paint was scuffed and in poor condition. Please clarify the sentence	

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## REVIEW COMMENT RECORD CONTINUATION SHEET

Document Reviewed (Title, Number Revision, Date, etc.)	Reviewer	R Hyland	Agreement with Dispositions
OU 15, Draft Phase I RF/R1 Report August, 1991	Date	September 8, 1994	Phone #2136 Reviewee

Comment No	Comment Type*	Sect /Para No	Comment	Disposition
20	E	Sect 2.0 Para 2 5 2 Page 15/28	Top Paragraph, last sentence The identified need for PPE in HISS 204 does not give a lot of support to the "No Action" path	
21	E	Sect 2.0 Para 2 6 1 Page 16/28	Last sentence on page What does "collected in the waste vacuum cleaner and managed in the process drum" mean?	
22	I.	Sect 3.0 Para 3 3.1 Page 6/36	First Paragraph Radiological Operating Instruction 3.1 is not identified in the WP but the other document Environmental Management Radiological Guidelines Section 3.1 is if it is also called EMRG 3.1. Have the regulators approved the use of a substitute procedure? and Top Paragraph Page 7/36 Counting and analysis, instrumentation is identified, however, the proper procedure(s) for use with the instruments is(are) not Is everything done or EMRG 3.1? Please clarify	
23	E	Sect 3.0 Para 3 3.2 Page 7/36	First paragraph SOP FO 27 is identified See Comment #16 above	

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Document Reviewed (Title, Number, Revision, Date, etc.)	Reviewer	R Hyland	Agreement with Dispositions
OU-15, Draft Phase I RTR/RI Report August, 1994	Date	September 8, 1994	Date
	Organization	R1G/DOE - RTR/TER	Reviewer
			Document Preparer

Comment No	Comment Type*	Sect/Para No	Comment	Disposition
24	E	Sect 30 Para 3 3 2 Page 8/36	First Paragraph IG&G SOP SW 2 is not identified in the WP Has its use been approved by the regulators?	
25	E	Sect 30 Para 3 3 2 Page 8/36 and 9/36	Last Paragraph page 8 and 1 top Paragraph page 9 What procedures are associated with the instrumentation identified and are these procedures identified in the WP?	
26	L	Sect 30 Para 3 4 Page 9/36	Bottom of page "dissolved radionuclides" are identified but not specifically identified. Since U is the primary radiological COC Shouldn't the C.R.P. Protocol be identified?	
27	L	Sect 30 Para 3 5 Page 11/36	1 top Paragraph Add a space at the end of the paragraph	
28	L	Sect 40 Para 4 2 1 Page 4/44	First Sentence SOP FO 27 is identified See Comment #16 above	

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Document Reviewed (Title, Number, Revision, Date, etc.)	Reviewer	R Hyland	Agreement with Dispositions
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	Organization	RTG/DOE — RFF/ER	Reviewer
		Phone x2136	Document Preparer

Comment No	Comment Type*	Section/Para No	Comment	Disposition
29	E	Sect 10 Para 1-2-3 Page 19/44	First Bullel  The write-up is confusing and does not appear to be in accordance with the explanation on the preceding page, i.e., how can you have something that is valid at a confidence level of 99% and yet not be valid at a confidence level of 95%? This does not appear to valid statistically.	
30	E	Sect 10 ThIs. 4-2 thru 4-6 Page 19/44	Last Paragraph, last full sentence  Do you really want to acknowledge that there is contamination under the paint? This position is counter to your ER 2000 "No Action" position	
31	E	Sect 50 Para 5 1-2 Page 6/92	There appears to be missing data in the tables, please check and add as appropriate	
32	E	Sect 50 Para 5 2 Page 15/92	Top Paragraph, last sentence  RAGS Part A is not in the References What is it?	
			First Paragraph, last sentence  The levels in IHSS 204 appear to exceed the specified radiation protection standards. They definitely exceed Reg Guide 186 and DOE Order 5480 11 surface contamination levels. How can you make this statement?	

AMLR REVIEW OF TECHNICAL DOCUMENTS  
RFVIIW COMMENT RECORD CONTINUATION SHEET

Document Reviewed (Title, Number, Revision, Date, etc.)			Reviewer R Hyland	Agreement with Dispositions
OU-15, Draft Phase I RFIRI Report August, 1994			Date September 8, 1994	Date Reviewer
			Organization RTG/DOE - RFFO/ER	Document Preparer

Comment No	Comment Type*	Section/Para No	Comment	Disposition
33	E	Sec L 50 Para 5 2 1 3 Page 20/92	I am indicating the proper DAC values for Radiation Workers extracted from 10CFR20, Appendix B, Table 1, Rev Jan 1, 1994 are:  Am 241 -- 3.00 E-12 $\mu$ Ci/ml (soluble) Ra 26 -- 3.00 E 10 $\mu$ Ci/ml (soluble) Pu 239 -- 1.00 E 10 $\mu$ Ci/ml (soluble) Pu 240 -- 1.90 E 12 $\mu$ Ci/ml (soluble) U 233 -- 5.00 E 10 $\mu$ Ci/ml (soluble) U 234 -- 5.00 E-10 $\mu$ Ci/ml (soluble) U 235 -- 6.00 E-10 $\mu$ Ci/ml (soluble) U 238 -- 6.00 E-10 $\mu$ Ci/ml (soluble)	Since these values differ somewhat from those used, how will their use affect the screening process? Please explain in detail. This information will be needed to get Final Phase I RFIRI Report through ESH Paragraph No 2.
34	E	Sec L 50 Para 5 2 5 Page 27/92	Page 21/92	The value used for Pu is wrong if the above is correct.  Second Paragraph It is not at all certain that IHSS 204 will remain as an operational RCRA unit in the building. Please check and re-evaluate what is going to actually happen to the Chip Roaster. It may have to be KCRRA Clean Closed and the Part B Permit modified in any event.

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## REVIEW COMMENT RECORD CONTINUATION SHEET

Document Reviewed (Title, Number, Revision, Date, etc.)	Reviewed by	Date	Hyland	Agreement with Dispositions
OU-15, Draft Phase I RF/RRI Report August, 1994	Keweenaw	September 8, 1994	Phone x 2136	Date Reviewer

Comment No.	Comment Type*	Section No.	Comment	Disposition
35	E	Section 5.0 Para § 281 Page 29/92	3rd Sentence IHSS 204 shows considerable surface contamination and did not appear to have been screened for airborne. The statement is probably true for only five of the six IHSSs  Last Line Recommend that the proper adjective be used to qualify the dose rate, at the one for occupational exposure.	
36	E	Section 7.0	IHSS 201 contains surface contamination above and beyond the NRC's limits and the potential for re-suspension and generating airborne limits above those allowable is very real. The unit is not currently operating and may not be considered operational by the state under the RCRA Permit since it has not been used for well over a year. The question as to its status as either idle or abandoned equipment needs to be addressed. This has a tendency to cloud the overall BRA issue. It was previously understood that as long as the building safety envelope and the institutional controls remain in place there was no imminent threat of a release to the environment and therefore a BRA was not needed. However, the explanation provided in this section indicates otherwise Please explain	